

REMARKS

Claims 1 - 8, 12, 14 – 34 and 36 are pending in the present application, of which claims 15 – 34 have been withdrawn from consideration. By this Amendment, claim 36 has been canceled. No new matter has been added. It is believed that this Amendment is fully responsive to the Office Action dated April 20, 2004.

Allowable Subject Matter:

Applicant gratefully acknowledges the indication that claims 1, 4, 12 and 14 have been allowed.

Claim Rejections under 35 U.S.C. §103

Claims 2, 3, 7 and 8 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Hosotani et al.* (U.S. Patent No. 5,977,583) in view of *Kimura* (U. S. Patent No. 6,127,734).

This rejection is respectfully traversed.

The claimed invention has a feature that the side-wall insulation film is formed on an inner wall of the contact hole and the contact hole is surrounded with the sidewall insulation film. This feature means that the sidewall insulation film is formed on all sides of the contact hole (see attached FIGS. 1(a), 1(b) and 2).

The Examiner states in page 2 of the Office Action dated April 20, 2004 that *Hosotani et al* shows that the sidewall insulation film 21 is formed on an inner wall of the contact holes so

that side walls of the conductor pattern and the etching stopper film are covered and surrounded. However, this is incorrect. That is, in *Hosotani et al.*, the contact hole is not surrounded with the sidewall insulation film.

In *Hosotani et al.*, the sidewall insulation film 21 is formed on the two sides of the contact hole which are defined by the ends of the gate electrodes 19 (see, e.g., FIGS. 18 and 19 of *Hosotani et al.*, and attached FIG. 1(d)). However, the sidewall insulation film is not formed on the sides of the contact hole which are defined by the ends of the insulation film 22 (see, e.g., FIGS. 18 and 20 of *Hosotani et al.*, and attached FIG. 1(c)). Thus, in *Hosotani et al.*, the sidewall insulation film 21 is formed on only two sides of the contact hole, and the contact hole is not surrounded with the sidewall insulation film 21. Thus, the sidewall insulation film of *Hosotani et al.* clearly differs from that of the claimed invention.

The above-described feature of the present invention is based on the fact that the sidewall insulation film is formed after the formation of the contact hole in the insulation film. On the other hand, in *Hosotani et al.*, the sidewall insulation film 21 is formed on the side walls of the gate electrode 19, then the insulation film 22 is formed, and then the contact hole is formed in the insulation film 22. Thus, in *Hosotani et al.*, the contact hole is never surrounded with the sidewall insulation film 21.

Hosotani et al. neither teaches nor suggests that the contact hole is surrounded with the sidewall insulation film. *Kimura* also neither teaches nor suggests such with regard to the contact hole.

As described above, *Hosotani et al.* and *Kimura* are clearly differs from the claimed invention and do not provide any motivation for the claimed invention. Thus, the claimed invention would have been unobvious to one of ordinary skill in the art at the time of the invention was made, even if *Hosotani et al.* and *Kimura* are combined.

Claims 5 and 6 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Hosotani et al.*, in view of *Kimura*, and further in view of *Fukase* (U.S. Patent No. 5,728,596).

This rejection is respectfully traversed.

However, as described above, *Hosotani et al.* and *Kimura* clearly differ from the claimed invention and do not provide any motivation for the present invention. Thus, the claimed invention would have been unobvious to one of ordinary skill in the art at the time the invention was made, even if Fukase is further considered

In view of the aforementioned amendments and accompanying remarks, Applicant submits that the claims are in condition for allowance. Applicant requests such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicant's undersigned attorney to arrange for an interview to expedite the disposition of this case.

Response under 37 C.F.R. §1.116
Attorney Docket No.: **980446**
Serial No.: **09/050,113**

If this paper is not timely filed, Applicant respectfully petitions for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP

A handwritten signature in black ink, appearing to read 'TEB', with a stylized flourish at the end.

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Enclosures: Attachment A (FIGS. 1(a) – (d)) and Attachment B (FIG. 2)

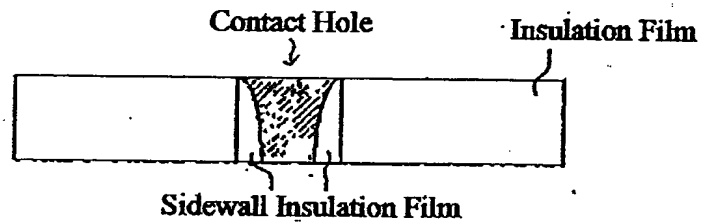


ATTACHMENT A

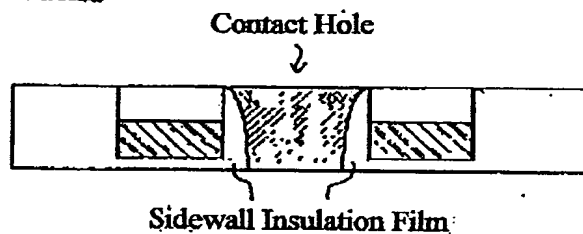
Figure 1

Present Invention

- (a) Cross-section along the Extending Direction of the Conductor Patterns

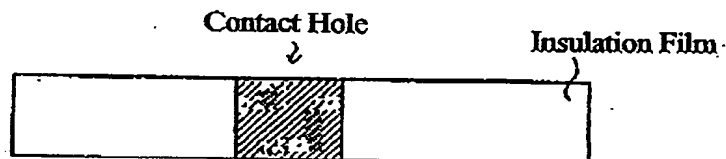


- (b) Cross section along the Direction Perpendicular to the Extending Direction of the Conductor Patterns

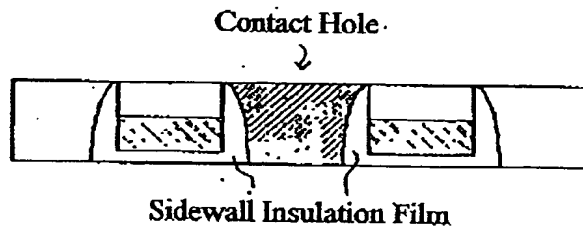


Hosotani et al.

- (c) Cross-section along the Extending Direction of the Conductor Patterns



- (d) Cross section along the Direction Perpendicular to the Extending Direction of the Conductor Patterns





Present Invention

